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IN THE CLAIMS

1. (Currently Amended) A method of reducing notching in etched anisotropic openings in silicon over an insulator layer comprising:
anisotropically etching openings in silicon with a sulfur hexafluoride etchant in a plasma etch chamber fitted with a powered substrate support while applying pulsed bias power to the a substrate support electrode during the etch step; and
overetching the silicon while applying pulsed bias power to the substrate support electrode.
2. (Currently Amended) A method according to claim 1, wherein the applied bias power to the substrate support electrode during the etching step is from 3 to 100 Watts.
3. (Cancelled)
4. (Currently Amended) A method according to claim 2, wherein the pulsed bias power during the etching step is applied at a duty cycle of 10% to 80% using a 6 microsecond period.
5. (Currently Amended) A method according to claim 4, wherein the pulsed bias power during the etching step is applied at a duty cycle of 35%.
6. (Original) A method according to claim 1 wherein, prior to etching, a deposition step using a fluorocarbon or hydrofluorocarbon gas is used to deposit a fluorine-containing polymer over the substrate.
7. (Cancelled)
8. (Original) A method according to claim 6 wherein no bias power is used during the deposition step.

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9. (Original) A method according to claim 6 wherein the pressure in the chamber is maintained at about 5 to 300 millitorr during the deposition step.
10. (Cancelled)
11. (Previously presented) A method according to claim 6 wherein etching is carried out in the absence of oxygen.
- 12-13. (Cancelled)
14. (Previously Presented) A method according to claim 1 wherein, prior to overetching, a deposition step using a fluorocarbon or hydrofluorocarbon gas is used to deposit a fluorine-containing polymer over the substrate.
15. (New) A method according to claim 1, wherein the applied bias power to the substrate support electrode during the overetching step is from 3 to 100 Watts.
16. (New) A method according to claim 16, wherein the pulsed bias power during the overetching step is applied at a duty cycle in the range of 10% to 80% using a 6 microsecond period.
17. (New) A method according to claim 16, wherein the pulsed bias power during the overetching step is applied at a duty cycle of 35%.